UCRL-JC-122291 Abs

United States-Assisted Studies on Dose Reconstruction in the Former Soviet Union*

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Abstract. Following the Chernobyl accident, the US and the USSR entered into an agreement to work on the safety of civilian nuclear reactors; one aspect of that work was to study the environmental transport and health effects of radionuclides released by the accident. After the break-up of the USSR separate agreements were established between the US and Ukraine, Belarus, and Russia to continue work on dose reconstruction and epidemiologic studies of health effects from exposure to external radiation and the incorporation of radionuclides. Studies in Belarus and Ukraine related to the Chernobyl accident now emphasize epidemiologic studies of childhood-thyroid cancer and leukemia, and eye-cataract formation in liquidators. Supporting studies on dose reconstruction emphasize a variety of ecological, physical, and biologic techniques.

Studies being conducted in Russia currently emphasize health effects in the workers and the population around the Mayak Production Complex. As this production complex is an analogue of the US Hanford Works, advantage is being taken of the US experience in conducting a similar, recently completed dose-reconstruction study.

In all cases the primary work on dose reconstruction is being performed by scientists from the former Soviet Union. US assistance is in the form of expert consultation and participation, exchange visits, provision of supplies and equipment, and other forms of local assistance.

* Portions of this work were performed at the Lawrence Livermore National Laboratory under the auspices of the Office of International Health Studies; Assistant Secretary for Environment, Safety and Health; US Department of Energy; under contract W-7405-Eng-48.